

# STELLA MORETTI

## DATA SCIENTIST

## CONTACT

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## SKILLS

**PROGRAMMING LANGUAGES:** Python, SQL  
**MACHINE LEARNING ALGORITHMS:** Linear regression, logistic regression, decision tree classification, random forest classification, gradient boosted models, clustering  
**PYTHON LIBRARIES:** NumPy, Pandas, scikit-learn, Beautiful Soup, Scrapy, NLTK, Gensim word2vec, SciPy, StatsModels, Flask  
**DATA VISUALIZATION:** matplotlib, Seaborn, D3.js  
**DATABASES:** NoSQL, PostgreSQL  
**PLATFORMS:** Amazon Web Services, Git, GitHub

## DATA SCIENCE PROJECTS

### Predicting the Rental Income of an Airbnb Home

- Developed an interactive web application to enable Airbnb hosts to estimate the expected income from their listing.
- Used a combination of regression algorithms to estimate revenue based on dynamic pricing and predicted occupancy.

### Modelling the Language of TED Talks

- Extracted key topics from 2,500 TED talk transcripts using natural language processing techniques.
- Modelled the semantic trajectory of selected words over time by creating vector representations of TED speakers' vocabulary using Gensim word2vec.
- Deconstructed the underlying structure of popular TED talks by conducting time-based sentiment analyses.

### Predictive Commerce with Instacart

- Predicted repeat purchases of grocery items with 85% accuracy by training a scikit-learn random forest classifier on Instacart customers' shopping history.

### The Forkcast

- Predicted album review scores published on the popular music website, Pitchfork, by training a linear regression model on data scraped using Beautiful Soup, Scrapy and the Spotify Web API.

## EDUCATION

### Metis, New York

Data Science Bootcamp 2017

Metis is an accredited, immersive data science program with a 12-week curriculum covering statistics, machine learning, and data visualization.

### The University of Melbourne, Australia

B.Eng. Chemical Engineering 2007

B.S. Chemistry 2007

## EMPLOYMENT

### Freelance

*Data Analyst* · Jan 2017 to Present

**Google Analytics certified analyst supporting the e-commerce business of a leading distributor of high-quality gift and toy products.**

- Analyzed digital platform metrics and provided detailed recommendations for improving customer acquisition and engagement.
- Developed insightful automated dashboards, reports and data visualisations to monitor and understand KPIs.
- Collaborated with external developers to optimise website design, SEO and usability, which resulted in 15% revenue growth and 30% conversion rate growth.
- Devised and implemented a digital marketing strategy to increase traffic and drive sales using Facebook Advertising and Google AdWords.
- Tracked and evaluated campaign performance to maximise digital marketing ROI.

### ExxonMobil

*Project Engineer (Safety, Health & Environment)* · 2014 to 2016

**Led the data collection, analysis and reporting activities prescribed by a multi-billion dollar financing agreement for the Papua New Guinea Liquefied Natural Gas Project.**

- Established a process for acquiring safety, health and environmental data from internal functional groups and third-party contractors.
- Analyzed data and built visualizations to illustrate the project's performance against defined KPIs.
- Identified data collection gaps and collaborated with project functions to address compliance issues.

*Operations Technical Surveillance Engineer* · 2012 to 2014

**Principal process engineer for five offshore production facilities that are major suppliers to Australia's natural gas market.**

- Conducted surveillance of real-time operational metrics to optimize gas production and quickly troubleshoot problems.
- Analyzed and modelled long-term operational data to identify, prioritize and execute 20+ technical process improvements that resulted in increased production, minimized downtime and reduced safety risks.
- Led a multi-disciplinary project team to develop a strategy for monitoring and managing risks related to facility erosion, resulting in a 40% increase in gas production on one facility.
- Prepared technical evaluations, cost estimates, project economics, risk assessments and execution planning documentation for capital and expense projects.
- Completed change management documentation for facility modifications, including updates to technical drawings, procedures and process models.
- Coordinated the 2013-14 ExxonMobil Summer Intern Program - awarded *Australia's #1 Intern Program 2013 by the Australian Association of Graduate Employers*.

*Project Engineer (Environment and Regulatory)* · 2008 to 2012

**Primary advisor for 20+ oil and gas production facilities, driving process improvements to reduce environmental impact.**

- Monitored air and water emissions data to ensure operational compliance with environmental regulations.
- Conducted spill trajectory modelling to assess and predict the environmental impact of oil spills.
- Evaluated environmental performance indicators to identify opportunities to improve resource efficiency.